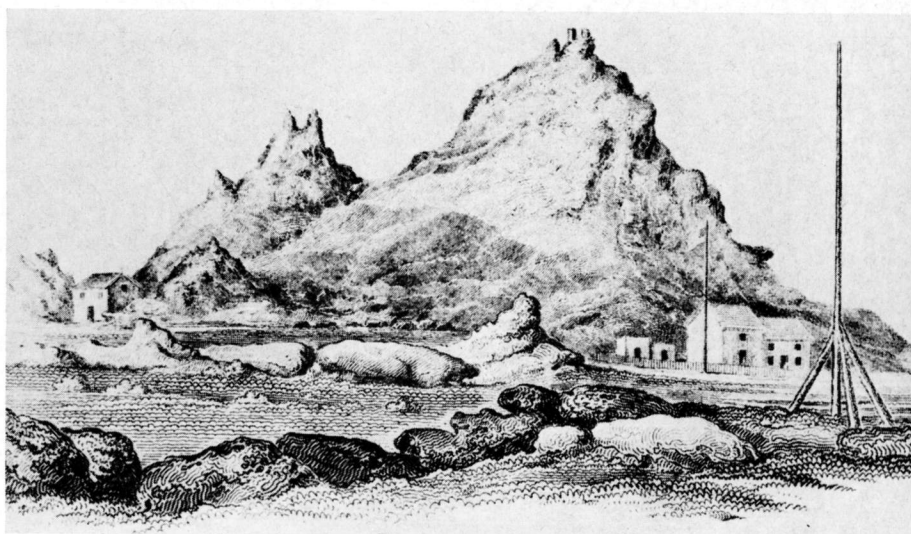




THESE ARE THE FARALLONS

Allyn G. Smith



ON CLEAR days from almost any high vantage point in the San Francisco Bay area, a small group of islands can be seen by looking due west. These are the Farallon Islands — “farallon” being an old Spanish nautical term for any jutting rock or ocean cliff of importance to navigation. Few who have seen these islands know that they are an offshore portion of the City and County of San Francisco, presently under the jurisdiction of the United States Coast Guard.

The Farallons have a fascinating history beginning early in the nineteenth century. For well over a hundred and fifty years these small, barren, almost forbidding chunks of granite played a significant part in the commercial life of the San Francisco Bay area. They play a different but equally important role today, being directly on the shipping lanes to Pacific ports.

There are seven main islands in the Farallon group. Largest, and the only inhabited one, is the Southeast Farallon, on which the lighthouse and much navigational and weather recording equipment is located. This island is about 27 miles west of Point Bonita and is roughly a mile long and half a mile wide. The Southeast Farallon is at times almost two islands, the eastern portion being cut by a deep surge channel subject to heavy wave action at high tide although passable on foot when the tide is low. The tallest point, on which the lighthouse has been built, is 350 feet above mean sea level. A Coast Guard station is located on a flat area toward the south end. There are no major docks or piers. Landings are made in small tenders operating from Coast Guard supply ships anchored offshore. When the weather is stormy and the waves are high, landing is a hazardous experience.

Top, air view of the Southeast Farallon. (Call-Bulletin photo, courtesy of San Francisco Public Library.)

Above, sketch of just-completed lighthouse by W. P. Trowbridge. (From an 1855 U. S. Coast Survey Report.)



Trail to lighthouse from Coast Guard buildings emphasizes a bleak, treeless setting.

Some early accounts of the Farallons say they are volcanic, but they have since been learned to be an outcrop of an immense dike of granite. On the Southeast Farallon three wave-cut terraces are evident, the ones at the upper levels accompanied by ancient sea-caves, indicating a considerable uplift of the island in relatively recent geologic time. At the present sea level new caves are being excavated, some of them quite large. For details of the geology of the Farallons the reader is referred to Dr. G Dallas Hanna's account in the "Geologic Guidebook of the San Francisco Bay Area", published in 1951 by the California Division of Mines as Bulletin 154. This report was prepared by Dr. Hanna shortly after he and I spent a week on the Southeast Farallon in May of 1949, exploring its geology and natural history.

In early accounts, the complete lack of fresh water on the island is generally inferred. This is not strictly correct. In the *Overland Monthly* for September of 1892, Charles S. Green states:

There is, I believe, but one spring on the Farallon—a mineral spring in a little bight on the north side, within a few feet of the breakers. The water has a slightly yellowish color, such as would be given a glass of clear water by adding a teaspoonful of strong tea. Its taste is very pleasant, slightly acid, and a little

puckery. It requires no analysis to show that there is iron in it, and there is an entire absence of suggestion of sulphur. The effect is mildly aperient, and the dwellers on the island prize it highly. They say one can drink it in unlimited quantities in hot weather without the distress that rainwater causes.

We looked for this spring and finally located it; the flow was quite small. It was in the middle of an area where sea lions had been hauling up onto the beach for some time, leaving such a mess that tasting a sample of the spring water offered little attraction, even to an inquiring scientist. Rainwater no doubt furnished an occasional source for the early sealers and bird-egggers but this had to be supplemented, as it is today, with an assured supply from the mainland coupled with adequate tank storage on the island. In addition, the Coast Guard long ago poured concrete aprons on some of the accessible slopes to channel and store rainwater for emergency use.

The Southeast Farallon is probably the only island in the group where vegetation of any kind can find a foothold. Even so, there are no native trees or shrubs. In discussing the botany of the island in 1892, J. W. Blankenship listed as native only ten low-growing plants, a rare fern, an abundant moss, and four species of lichen. He also

listed seventeen introduced plants, some of which were well established and others localized only in gardens. This latter list has no doubt been much enlarged since. The most striking plant we noted in the spring of 1949 was the Farallon weed (*Baeria maritima*), which grew in thick stands two to four feet high in favorable locations. According to reports, this plant was used by older Farallon inhabitants as "greens" and as a salad constituent. It is the primary mainstay of the introduced, bothersome rabbit population.

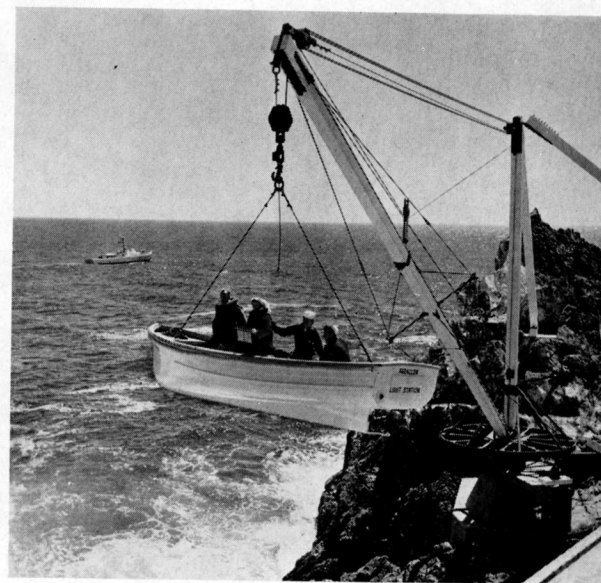
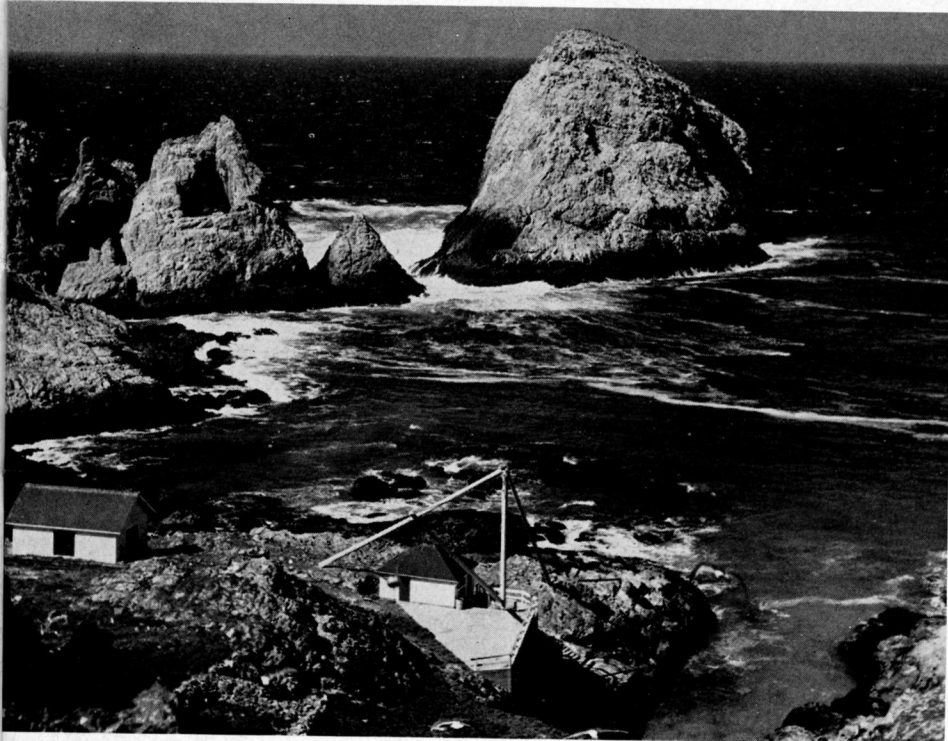
Writing in 1858, George Davidson, navigation expert, boundary surveyer, and later President of the California Academy of Sciences, attributed the discovery of the Farallons to Ferrelo in 1543. However, Henry R. Wagner stated in his 1928 account of Spanish voyages along the northwest coast of America that there was no direct evidence for this belief. Thus the real discoverer of the Farallons is not certainly known.

In June, 1578, Sir Francis Drake and some of his crew of the *Golden Hinde* landed on the Southeast Farallon, the first men to set foot there. After careening and refitting his ship in Drake's Bay or vicinity, he set sail for England, stopping at the island, as his journal says, to take "such provision as might competently serve our turne for awhile." He reported that the island had a "plentiful and great store of seals and birds", of which he no doubt killed some for fresh meat to be used during his long voyage. Drake named the group "The Islands of Saint James", the first name to be bestowed on them.

Drake's name was never accepted. Neither was Vizcayno's name, the "Isle Hendida", for what was probably the Southeast Farallon. The most appropriate name, a shortened version of which we now use, is reported to have been given by Juan Francisco Bodega y Quadra in 1775. He called them "Los Farallones de los Frayles" — the Headlands of the Friars — in honor of the Spanish padres who founded Mission Dolores in San Francisco.

Perhaps the first human use of the Farallons was as navigational aids. But about the beginning of the nineteenth century they began to assume commercial importance. Russia had at this time formed the Russian-American Fur Company, which dominated the fur trade in the north. The sea otter, whose beautiful fur was in great demand in Russia and China, was being hunted actively and with considerable profit by the Russians. Native Kodiak islanders, or Aleuts, were employed for this because they were particularly adept at spearing sea otters from their two-place kayaks. Fur seals were also discovered on the Farallons, and were killed by the tens of thousands by hunters stationed on the islands.

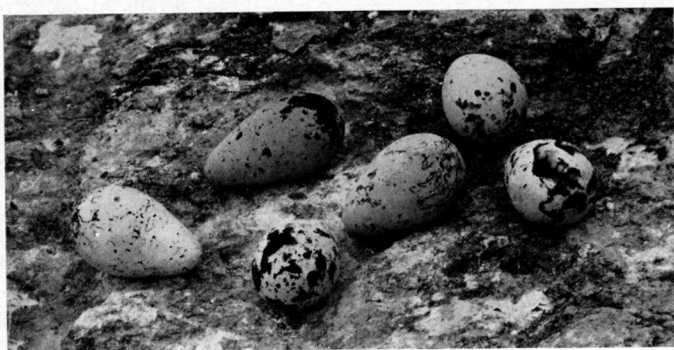
There seems little doubt about the great size of the original Farallon fur seal herd, but within a space of thirty years it was completely exterminated. The species of fur seal that occupied the islands has never been determined. Neither the skin nor the skeleton of a Farallon fur seal is preserved in any museum, so far as is known. The seal might have been the northern species now



Left, South Landing and Sugar Loaf. The prominent arch is a remnant of an ancient, uplifted sea-cave. Above, Landing operation, South Landing. A winch lifts the small tender 50 feet up onto a concrete platform. (Call-Bulletin photo, courtesy of San Francisco Public Library.)



Top, an egger being attacked by birds. (*Harpers Magazine*, April, 1874.) Above, early photo of eggers on the Farallons. Below, California murre eggs—on bare rock—and Brandt cormorant eggs in a nest of seaweed. (Photos by O. J. Heinemann from his photo collection at the California Academy of Sciences.)



protected on the Pribilof Islands; it might have been the Guadalupe fur seal; or it might have been a different species or subspecies. Adele Ogden, in her research into the Pacific coast fur industry, says the Farallon fur seals were smaller and blacker than the Alaskan fur seals, with coarser fur that made them less valuable. During our visit in 1949 we hoped to verify this indication that they might have been a separate species, but our results were not conclusive. While we were able to collect many skulls, teeth, and various other bones from an old killing field buried under several inches of decomposed granite soil near one of the present buildings, expert examination indicated that these were the remains of young sea lions.

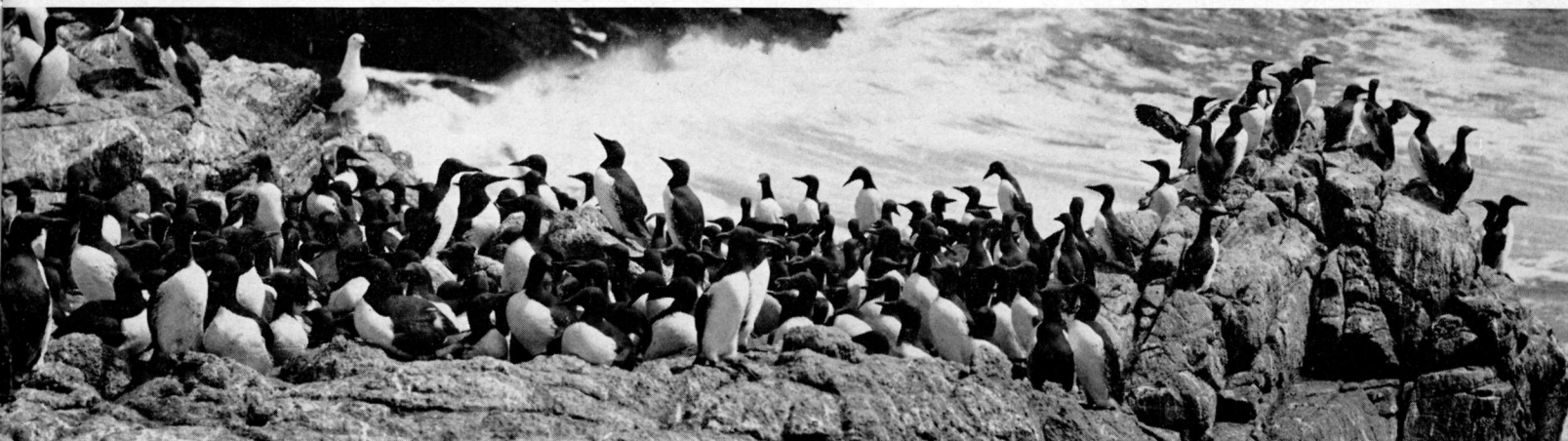
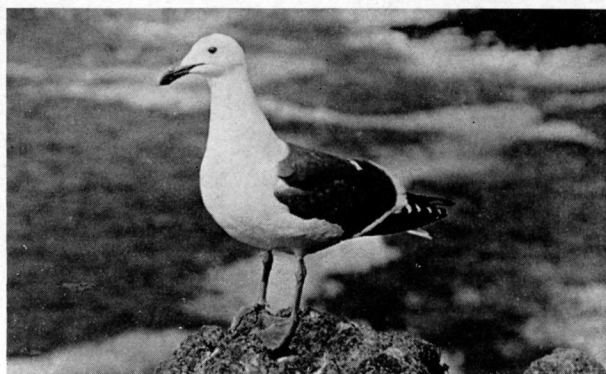
No one knows how many sea otters were killed for their fur around the Farallons. Once they were thought to have been completely exterminated, as none had been seen for many years. However, discovery of a small herd off the Monterey coast a few years ago, and the subsequent increase in their numbers under strict protection, has been a source of good news to conservationists. The story of the sea otter almost but not quite parallels that of the passenger pigeon, but with a happier conclusion. It is well told by Adele Ogden in "The California Sea-Otter Trade, 1784-1848", published by the University of California press in 1941.

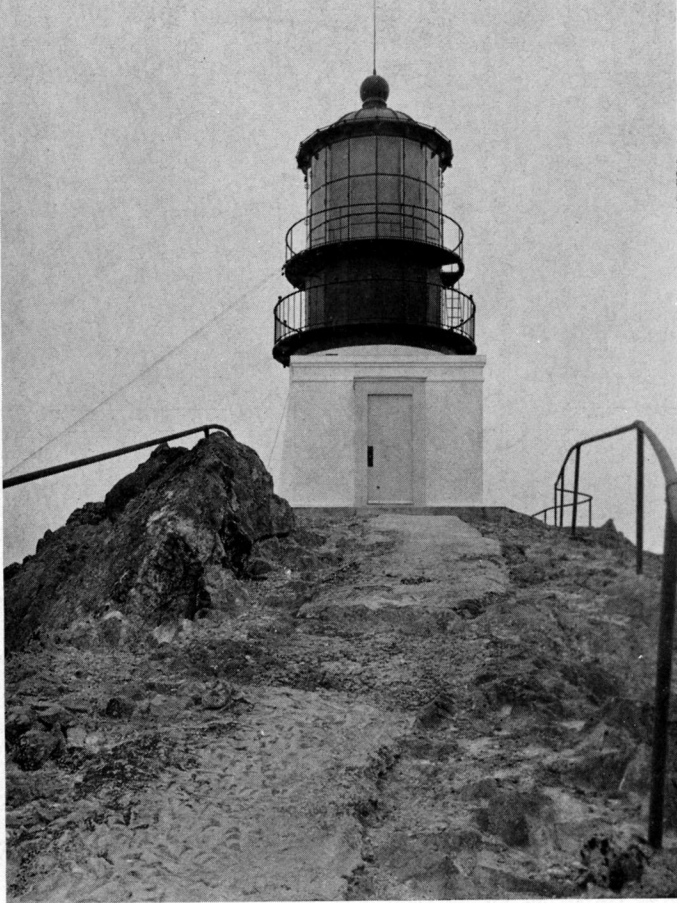
The destruction of the once great herds of fur seals and sea otters and the departure of the Russians closed a significant era in Farallon history. Soon, however, the islands became the center for another profitable industry. The Farallons have been noted for rookeries of sea birds since Sir Francis Drake's visit in 1578. Principal among the birds nesting on the Farallons is the California Murre (once called a guillemot). The murre is a handsome bird, about the size of a large duck, mostly black with a white breast. It sits erect, usually with its beak pointed upward. Its egg is large for the size of the bird, being almost as large as an egg of a goose or turkey. The egg is olive-greenish, variously blotched, and tapers toward one end. If dislodged from its position on a narrow ledge it rolls in a tight circle without falling off.

In the gold-rush days, hen's eggs were in short supply and were expensive. It was not long before some enterprising individual discovered that a fresh murre egg rivalled a hen's egg in quality. By 1850 the robbing of the murres' nesting ledges on the Farallons for the San Francisco market had become well organized. Almost from the beginning the industry was dominated by the Farallon Egg Company. However, there was soon an egg



Above, portion of a Brandt cormorant rookery on the Southeast Farallon. *Left*, a mother Farallon cormorant. *Right*, the western gull, a dominant Farallon resident. (Photos by Paul J. Fair.) *Below*, a group of tufted puffins (sea-parrots) with a California murre. *Bottom*, California murres on a Farallon ledge, with a western gull looking on for an opportunity to dine on their eggs. (O.J.H.)





The Farallon Light, which warns ships approaching the Golden Gate away from the dangerous, rocky islands. (O.J.H.)

war. The profit was too great not to cause keen competition. Highjackings of small boats bound from the Farallons with cargoes of murre eggs were frequent. The conflict grew so intense that guns were used and lives were threatened. Finally the U.S. Government had to step in to keep the peace.

Although the toll of the nine years of operations prior to 1873 had averaged 25,000 dozen murre eggs, it fell off thereafter to 15,000 dozen. Fearing the effect of the depredations on the murre rookeries Leverett M. Loomis, then Director of the California Academy of Sciences, visited the island in 1896 and found that the egg production had been reduced to 7645 dozen. He realized the murres were in danger of extinction. The alarm he raised led to federal action. In the following year the traffic in eggs was forbidden and the islands were placed under the jurisdiction of the Lighthouse Board, a branch of the Treasury Department. And on February 27, 1909, an executive order by President Taft made the islands a bird reservation. In 1918 jurisdiction over the islands was transferred to the Department of Agriculture.

Summarizing this story in his book, "Birds of California", W. Leon Dawson states:

The infamous egg traffic is a thing of the past, but the Farallon rookeries have never recovered. Birds, which in fifty years had been called upon to furnish the market some twelve million fresh eggs, were not

able, in spite of protection, to cope with new foes nor to stand up under the onslaughts of an ancient enemy, the sea gull, himself a notable beneficiary of protection.

When I visited the Southeast Farallon in 1911, for two weeks, I found about twenty thousand California Murres terrorized by about four thousand Western Gulls. . . . The case would not be so bad on an uninhabited island, for the Murres en masse are proof against the assaults of the gulls even. But the Southeast Farallon supports an increasing population of government employees, lighthouse keepers, weather men, wireless operators, etc., and these poor exiles have to stretch their legs once in a while. At the approach of a human the apprehensive Murres edge away, and the gulls swoop down to clean the uncovered eggs and to urge the Murres to further flight.

When Dr. Hanna and I were on the Southeast Farallon in May, 1949, the murres had only just begun to arrive for nesting so we saw only a few of them during our week on the island. From what we were told by the Coast Guard people at that time we are inclined to support Dawson's observations as still reflecting the situation, even after nearly forty years of protection.

At the present time the Farallons are of use as a combined Coast Guard, lighthouse, and weather station. The Farallon Light is one of the principal ones on the Pacific coast, the first one mariners look for on approaching San Francisco by sea.

The lighthouse, completed in 1855, is now powered by electricity furnished by large diesel-electric generators, one in use, the second as a spare, and a third for the rare emergency in the event the other two fail. However, a light alone is not enough, as the vicinity of the Farallons is the source of most of San Francisco's fog. The first fog siren was a steam-locomotive whistle powered by waves forcing air into a blow-hole. The present fog siren is a modern diaphone producing a well-known, low-pitched moan that can be heard for miles.

Although the murre rookeries have not regained their former population, there are still many birds, of several kinds, on the Farallons. Of the night birds the small Cassin auklet, somewhat larger than a quail, is the noisiest. It has a nerve-shattering cry somewhat like the loud creaking of very rusty gate-hinges. The South Farallon is also the nesting ground for thousands of petrels. They come in at dusk; some evenings the air seemed full of them. Small slate-colored birds, they often flew close to our faces like giant fluttering moths. Their call is a soft, drawn-out twitter. The nights were full of their voices, frequently giving the impression of a pet store full of chattering parakeets,

magnified many times over. Another bird we saw often in our ramblings over the island during the days was the oyster-catcher, with its brilliant red beak, chisel shaped for prying limpets off the rocks for food.

Rabbits are the only prevalent land mammal on the Southeast Farallon although a few hoary bats have been collected there. Rabbits were introduced many years ago; no one knows when, or by whom. In 1949 the rabbits were present but not numerous, probably the result of a poison campaign several years before. It would not be surprising, however, to find that rats and mice also had been introduced.

There are not many insects on the Farallons, except for kelp flies that are present at times in uncounted millions; often these are a real nuisance. We collected what insects we could find and, although the catch was small, we found a click-beetle that proved to be a new species. We saw no red ants but did find that the bodies of dissicated pelicans and cormorants harbored quantities of large ticks. Fortunately these were not the kind that bothers people.

There are no snakes on the Southeast Farallon, but a species of spotted salamander lives there. We had hoped to find some of these but failed in spite of a careful search.

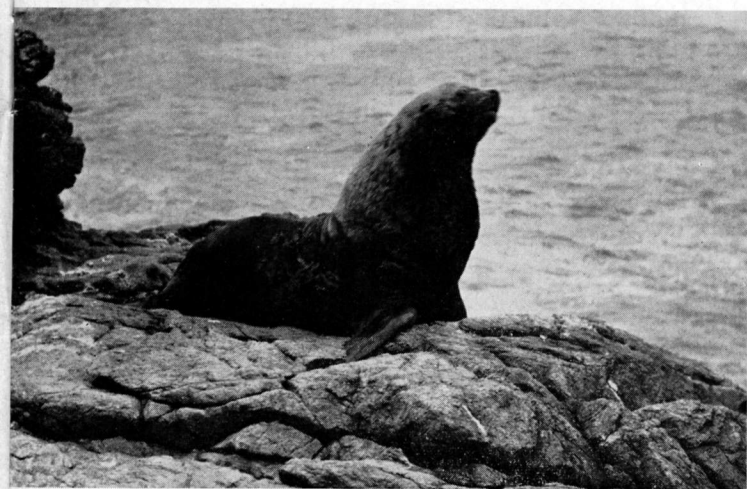
Mollusks are plentiful. Both the red and the black abalones are large and abundant. Many shells of the Alaskan abalone were washed ashore on the few sand beaches and into the surge channels, indicating a sizable quantity of this deep-water species. Owl limpets, now quite scarce on the mainland because of overcollecting, are abundant and large. We had not seen so many and such fine ones in years. Low tide uncovers many tide pools, some small and others quite large.

Rarely had we seen more colorful ones, their bottoms covered with brilliant mats of red and purple sponges and their accompanying invertebrate inhabitants — sea urchins, shrimps, nudibranchs, and shelled gastropods, both living and occupied by hermit crabs.

There are two land mollusks. The common European brown snail, a mainland garden pest, has been introduced but evidently is not too successful in the environment of salty fog. It was a bit surprising to find them on the open ground, looking dead and bleached, only to pick them up and find them alive. The other land mollusk is a large greenish yellow slug of a species common on the mainland. These were about in the grassy areas early on foggy mornings. Standing in one spot near a small fresh-water reservoir, I counted more than fifty. It is not known whether their presence on the island antedates human habitation.

In addition to the evaluation of animal populations, one special result of our geological exploration was the discovery of a most unusual phosphate mineral new to the Western hemisphere. Dr. Hanna has reported on this discovery in the Division of Mines Geologic Handbook for 1951:

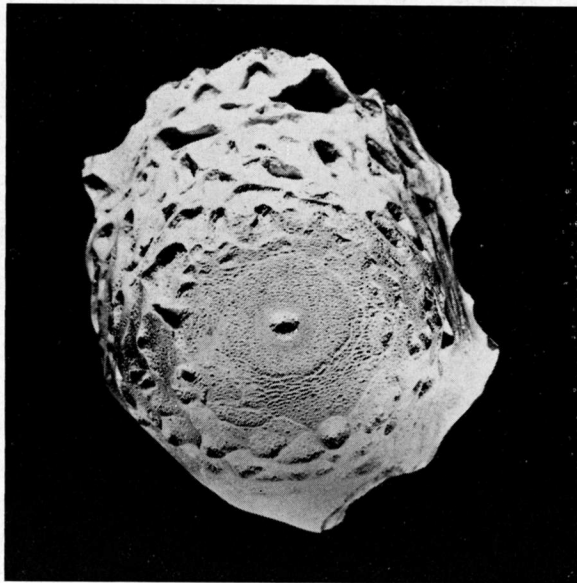
On the north shore of the west end of the island (Indian Head), and just across a low divide from 'Shell Beach', there is a huge sea cave extending eastward under a steep cliff. To the south there is a smaller one extending at nearly right angles. The latter is not very large and has, just inside the entrance, a tide pool as brilliantly colored with marine life as one might expect in the tropics. Farther inside, the floor of the cave can be reached, but not without some danger if a heavy sea is running. The place was visited twice, and both times the floor was wet with salt spray. At high tide water drips slowly from the roof but leaves no deposit there. On the wet floor small,



A bull sea lion on the rocky Farallon shore. (O.J.H.)



A narrow-gauge railroad connects the landings. (Photo by G Dallas Hanna.)



Right,
minervite,
a rare
phosphate
mineral from
a Farallon
sea-cave.
(G D.H.)

Below, the
Southeast
Farallon
at sunset.
(U.S. Coast
Guard photo.)

flower-like stalagmites about two inches in diameter and two inches high have formed. These have beautiful, wavy, scalloped cups on the outside and in the center of the cone there is a slight crater-like depression. They are minervite, a phosphate not heretofore recorded from California.

So far as is known, minervite, which was discovered in Italy under much the same conditions described above, has not been found anywhere else in the world other than these two places.

The guano which is partly responsible for the formation of the minervite is extensive about the cormorant rookeries. Some years ago there was an attempt to gather, bag, and sell it for fertilizer in

San Francisco, but it turned out to be of poor commercial quality. However, we did find these guano areas to be interesting collecting grounds for deep-water shells. These are eaten by fish, which the cormorants catch by deep diving and bring to their nests as food for their fledglings. The cormorants are good providers, bringing in more fish than their youngsters can eat. The leftovers eventually disintegrate, leaving the shell contents of their stomachs on the surface. We found a new gastropod species on this garbage-guano heap.

Our visit to the Farallons proved profitable in many ways — the first geological survey of the islands, an opportunity to evaluate wildlife populations, discovery of new gastropod and beetle species, and discovery of a rare mineral. Our work was aided by the Coast Guard employees who, with their families now stationed on the Southeast Farallon, are an efficient and hardy people, living happily on one of the most desolate and barren places on earth. Nordhoff, in his 1874 article in *Harper's*, expresses this quality of the Farallons very well:

Except the rock of Tristan d'Acunha in the Southern Atlantic Ocean, I have never seen an inhabited spot which seemed so utterly desolate, so entirely separated from the world, whose people appeared to me to have such a slender hold on mankind. Yet for their solace they know that a powerful government watches over their welfare, and — that, thirty miles away, there are lights and music and laughter and singing, as well as crowds, and all the anxieties and annoyances incidental to what we are pleased to call civilization.

These, then, are the Farallons.

